Lab # 01:

Introduction to Dynamic Web Content

Spring 2025

CSE 404L – Database Management Systems Lab

Submitted by:

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Section: B

"On my honor, as student of University of Engineering and Technology, I have neither given nor received unauthorized assistance on this academic work."

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Project Insurance Management System

CONCEPTUAL SCHEMA

Entity Description Table

- **USER**

Attribute	Description
user-id	INT Primary Key uniquely identifies each user uniquely, usually auto-incremented
Name	VARCHAR(100) stores full name of the customer
Email	VARCHAR(150) stores unique email for communication
Phone	VARCHAR(20) stores contact number, allows international formats

- **Policy**

Attribute	Description
Policy-id	INT Primary Key uniquely identifies each policy
user _id	INT Foreign key referencing User
policy name	VARCHAR(100)Name/title of the policy
Start-date	DATE policy activation date
End-date	DATE policy expiration date

- **Claims**

Attribute	Description
Claim-id	INT Primary Key uniquely identifies each claim
Policy-id	INT Foreign Key refers to the associated policy
date	DATE when claim was filed
Claim-amount	DECIMAL(10,2) requested amount in the claim
Status	ENUM('Pending', 'Approved', 'Rejected') current state of claim

- **Premiums**

Attribute	Description
Premium-id	INT Primary Key uniquely identifies each

	premium payment
Policy-id	INT Foreign Key refers to the associated policy
due date	DATE when for due date
Amount	DECIMAL(10,2) the actual paid premium amount
paid date	DATE when payment was paid

- **Renewals**

Attribute	Description
Renewal-id	INT Primary Key uniquely identifies each renewal record
Policy-id	INT Foreign Key to the policy being renewed
Renewal-date	DATE when renewal was done
Amount	DECIMAL(10,2) the actual paid premium amount
Status	status paid or unpaid

. Beneficiary

Attribute	Description
beneficiary-id	INT Primary Key uniquely identifies each renewal record
Policy-id	INT Foreign Key to the policy being renewed
Name	VARCHAR(100) stores full name of the beneficiary
Relation	ARCHAR(100)Relationship to the policy holder

- **Agent**

Attribute	Description
Agent-id	INT Primary Key uniquely identifies each agent record
Name	VARCHAR(100) stores full name of the customer
Email	VARCHAR(150) stores unique email for communication
Phone	VARCHAR(20) stores contact number, allows international formats

- **Payment**

Attribute	Description
payment-id	INT Primary Key uniquely identifies each agent record
user id	INT Foreign key referencing User
Method	Payment method (Cash, Card, etc.)
Date	DATE when payment was filed
Amount	DECIMAL(10,2) the actual paid premium amount

- **Feedback**

Attribute	Description
Feedback-id	INT Primary Key uniquely identifies each Feedback record
User_Id	INT Foreign key referencing User
Date	DATE when payment was filed
Message	VARCHAR(100) Text feedback from the user,
Rating	rating provided by the user

- **Entity Relationships**

No.	Table Name	Related Tables & Relationship Types	Description
1	Customers	Policies (1:M), Claims (1:M)	One customer can have multiple policies and can file multiple claims.
2	Policies	Customers (M:1), Claims (1:M), Premiums (1:M), Renewals (1:M)	Each policy belongs to one customer and can have multiple claims, premium payments, and renewals.
3	Claims	Policies (M:1)	Each claim is linked to one policy.
4	Premiums	Policies (M:1)	Each premium is linked to one policy.
5	Renewals	Policies (M:1)	Each renewal record is associated with one policy.

Business Rules for Insurance Management System

User & Policy

- Each user can register for one or more policies.
- Each policy must be associated with exactly one user.

Policy & Agent

- A policy can be assigned to one or more agents.
- An agent can be responsible for one or more policies

Policy & Claims

- A claim can only be made against a registered policy.
- A policy can have multiple claims, but each claim belongs to only one policy.

Policy & Beneficiary

- A policy may have multiple beneficiaries.
- A beneficiary must be linked to a valid policy.

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Policy & Renewal

- A policy can have multiple renewal records.
- Each renewal must record the date, amount, and status (Paid/Unpaid).

Policy & Premium

- A premium record must be created for each policy payment schedule.
- Each premium entry must have a due date, paid date, and amount.

User & Payment

- A user may make multiple general payments (e.g., registration fees, charges).
- Each payment must include an amount, date, and payment method (cash, card, etc.).

User & Feedback

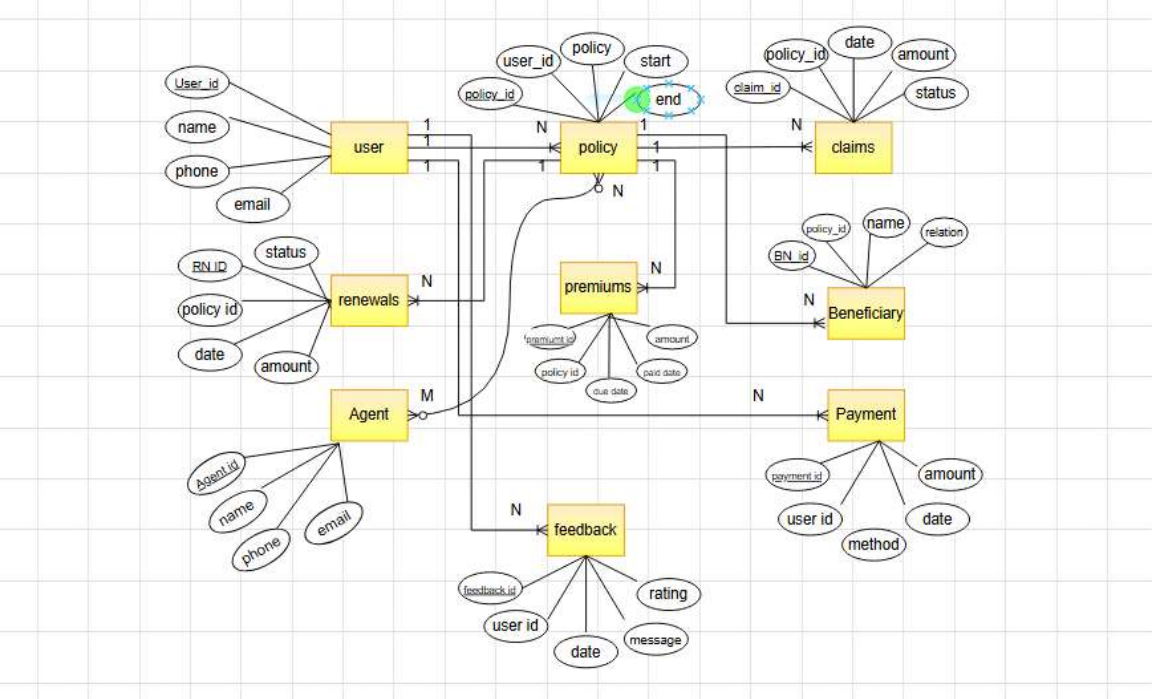
- A user may submit multiple feedback entries.

- Each feedback must include a date, a rating (1–5), and an optional message.

3. Relationships & Cardinality

Relationship	Type	Description
User → Policy	1:M	One user can have multiple policies.
Policy→ claim	1:M	Each policy can have multiple claim.
Policy → premium	1:M	Each policy can have multiple premium
Policy → Agent	M:N	many agent can have multiple agent
policy→ Beneficiary	1:M	Each policy is linked to one beneficiary.
Policy → Renewal	1:M	Each policy is linked to many REnewal.
User→ payment	1:M	Each user is linked to many payment.
User→ feedback	1:M	Each user give many feedback.

4. ER Diagram (Conceptual)



5. Tools Used

- ChatGPT for help
- Microsoft Word for documentation
- Draw.io for ER diagram creation